Skills-to-Course Matrix

Engineering/Dafting Crosswalk1b

Glencoe High School Portland Community College Apr-19

CCTC* Code Number EN01

EN02

EN03

EN04

EN05

EN06

EN07

EN08

EN09

EN10

regulations.

Engineering Technology Cluster

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names-secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using or if you want to use another set

	that trigger the TSA for this POS. 10) Finally, check those									, es	Marie	
	<u>ight with intent and purpose</u> , and are <u>assessed</u> in each course.					,e [^]	,e [^]	.‱∿		Marri	"Hai.	
	cus Area tabs below are included for those POSs that have a very	~°	~°	~ ³	ag ²	"ectul	"ectul	"ectus	"ectus	ૂં છે.	~ 10	
•	sare using those skill sets for multiple options in a Progam of Study another set of industry validated standards.	Drafting 1	Drafting."	Drafting L	Drating L	Architecture	Architecture	Architectur	Archite	COURS	(COITS	
		2110231	2110232	2110241	2110242	210311	2110312	2110321	2110322	[Course Number]	[Course Number]	
		21107	21107	21107	21107	21103	21103	21103	21103	21103	[NCES Code]	
Clus	ster Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	[# of Credits]	[# of Credits]	
Number	KS Statement	n	n	у	у	n	n	у	у	[TSAY or N?]	[TSAY or N?]	
	Use effective communication skills with a variety of audiences.			Х	х			х	х			
	Exhibit integrity and professionalism in engineering cluster occupations.											
				Х	х							
	Use technology such as computers and design software to solve engineering											
	problems.			Х	х							
	Understand and use applied mathematics and science for engineering cluster											
	careers.	х	х	х	х			х	х			
	Develop and implement a career plan within the engineering cluster occupations.											
	Use teamwork, critical thinking and problem solving skills to address complex											
	problems in engineering.			x	x							
	Understand the role of engineering in society throughout history and how it is				^							
	affected by economics, regulations, politics, and corporate culture.											
	Apply design principles and life-cycle methodology to create products, systems,											
	and processes using appropriate technology.											
	Understand the impact personal characteristics, such as creativity,											
	resourcefulness, the ability to visualize and the ability to think abstractly have on											
	engineers and their ability to design.											
	Understand and adhere to safety, health, and environmental standards and											

Skills-to-Course Matrix

Engineering/Dafting Crosswalk1b

Glencoe High School **Portland Community College**

CCTC*

Apr-19
Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names-secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each optional Focus Area tabs below are included for those POSs th industry fociusare using those skill sets for multiple options in a want to use another set of industry validated standards.

ught with inten ocus Area tabs ciusare using t	at trigger the TSA for this POS. 10) Finally, check those standards t and purpose, and are assessed in each course. Note: The below are included for those POSs that have a very specific those skill sets for multiple options in a Progam of Study or if you of industry validated standards.	Orafting 1	Dratting 1	Dratting 2	Dratting 2	Architecture 1	Architecture 1	Architecture 2	Architecture 2	(Course 9 Marine)	Course to Marnel
		2110231	2110232	2110241	2110242	210311	2110312	2110321	2110322	[Course Number]	[Course Number]
		21107	21107	21107	21107	21103	21103	21103	21103	[NCES Code]	[NCES Code]
Focus A	rea Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	[# of Credits]	[# of Credits]
Code Number	KS Statement	n	n	у	у	n	n	у	у	[TSAY or N?]	[TSAY or N?]
ENCS01	Understand the laws of thermodynamics and their application in the										
	analysis of chemical engineering problems.										
ENCS02	Understand and apply knowledge of chemistry in the solving of chemical										
	engineering problems.										
ENCS03	Understanding of chemical engineering processes.										

Skills-to-Course Matrix

Engineering/Dafting Crosswalk1b

Glencoe High School
Portland Community College
Apr-19

Civil &Infrastrucure Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

Note: The o	ptional Focus <i>A</i> iusare using the	t are <u>taught with intent and purpose</u> , and are <u>assessed</u> in each course. Area tabs below are included for those POSs that have a very specific ose skill sets for multiple options in a Progam of Study or if you want to validated standards.	Drafting 1	Orating 1	Orating 2	Drafting 2	Architecture 1	Architecture 1	Architecture 2	Architecture 2	Course 9 Marin	Course to Main
			2110231	2110232	2110241	2110242	210311	2110312	2110321	2110322	[Course Number]	[Course Number]
			21107	21107	21107	21107	21103	21103	21103	21103	[NCES Code]	[NCES Code]
	<u>Focus</u>	Area Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	[# of Credits]	[# of Credits]
ССТС*	Code Number	KS Statement	n	n	у	у	n	n	у	у	[TSAY or N?]	[TSAY or N?]
	ENCV01	Understand and use material science to solve problems appropriate to civil engineering.			x	x						
	ENCV02	Demonstrate knowledge of fluid dynamics.										
	ENCV03	Demonstrate knowledge of structural dynamics.										
	ENCV04	Understand and apply basic principles of environment quality.										
	ENCV05	Understand and apply knowledge of soil structure and mechanics to solve problems in civil engineering.										
	ENCV06	Understand and use local, regional, national and global spatial data infrastructures.										
	ENCV07	Understand and apply the principles of surveying in civil engineering.										

Skills-to-Course Matrix

Engineering/Dafting Crosswalk1b

Glencoe High School Portland Community College Apr-19

Electrical Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names-secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

ptional Foo ndustry foc	cus Area tabs iusare using t	t and purpose, and are <u>assessed</u> in each course. Note: The below are included for those POSs that have a very specific those skill sets for multiple options in a Progam of Study or if you of industry validated standards.	Drafting 1	Drafting ¹	Drafting 2	Drafting ²	Architecture .	Architecture .	Architecture	Architecture	(Course 9 Man	Course 10 Me
			2110231	2110232	2110241	2110242	210311	2110312	2110321	2110322	[Course Number]	[Course Number]
			21107	21107	21107	21107	21103	21103	21103	21103	[NCES Code]	[NCES Code]
	Focus A	rea Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	[# of Credits]	[# of Credits]
CCTC*	Code Number	r KS Statement	n	n	у	у	n	n	у	у	[TSAY or N?]	[TSAY or N?]
	ENES01	Understand and apply electrical theory and laws.										
	ENES02	Demonstrate knowledge and application of transistors.										
	ENES03	Understand and apply circuit concepts and analysis techniques.										
	ENES04	Demonstrate knowledge of circuit design and fabrication.										
	ENES05	Understand and apply digital concepts and circuitry.										
	ENES06	Demonstrate knowledge of power sources and power supplies.										
	ENES07	Demonstrate knowledge of communication systems.										
	ENES08	Understand and perform skills for system integration and amplification.										
	ENES09	Communicate using symbols, measurements, conventions, icons, and graphic images.										

Skills-to-Course Matrix

Engineering/Dafting Crosswalk1b

Glencoe High School Portland Community College Apr-19

Manufacturing Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names-secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

entify those courses that trigger the TSA for this POS. 10) Finally, check those indards that are taught with intent and purpose, and are assessed in each course. The optional Focus Area tabs below are included for those POSs that have a very ecific industry fociusare using those skill sets for multiple options in a Progam of Study if you want to use another set of industry validated standards.			Drafting 1	Drating 1	Orafting ²	Drating ²	Architecture 1	Architecture 1	Architecture 2	Architecture 2	Course 9 Mariel	(Course to Marie)
			2110231	2110232	2110241	2110242	210311	2110312	2110321	2110322	[Course Number]	[Course Number]
			21107	21107	21107	21107	21103	21103	21103	21103	[NCES Code]	[NCES Code]
	Focus Ar	<u>ea</u> Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	[# of Credits]	[# of Credits]
CCTC*	Code Number	KS Statement	n	n	у	у	n	n	у	у	[TSAY or N?]	[TSAY or N?]
		Use knowledge of material science to solve problems appropriate to manufacturing engineering.	x	x	x	x						
		Demonstrate knowledge of planning and logistics requirement in manufacturing engineering.	x	х	х	x						
		Demonstrate an understanding of quality control.										
	ENMN04	Understand and apply basics of supply chain management.	х	х	х	х						
	ENMN05	Understand and apply knowledge of manufacturing processes and practices.	x	x	x							
	ENMN06	Demonstrate basic knowledge of packaging within manufacturing.	х	х	х	х						

Skills-to-Course Matrix

Engineering/Dafting Crosswalk1b

Glencoe High School Portland Community College Apr-19

Mechanical Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names-secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES Identi

entify t andard ote: Th pecific i	hose courses th Is that are <u>taugh</u> e optional Focu industry fociusa	rse (secondary only). 8) Enter number of credits awarded. 9) nat trigger the TSA for this POS. 10) Finally, check those nt with intent and purpose, and are assessed in each course. It is Area tabs below are included for those POSs that have a very are using those skill sets for multiple options in a Progam of Study other set of industry validated standards.	Drafting 1	Drafting 1	Drafting ²	Drating ²	Architecture 1	Architecture 1	Architecture 2	Architecture 2	(Course 9 Name)	(Course 10 Marne)
		•	2110231	2110232	2110241	2110242	210311	2110312	2110321	2110322	[Course Number]	[Course Number]
			21107	21107	21107	21107	21103	21103	21103	21103	[NCES Code]	[NCES Code]
	Focus A	rea Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	[# of Credits]	[# of Credits]
сстс*	Code Number	KS Statement	n	n	у	у	n	n	у	у	[TSAY or N?]	[TSAY or N?]
	ENMS01	Understand and use principles of machine theory.										
	ENMS02	Demonstrate knowledge of fluid dynamics.										
	ENMS03	Demonstrate knowledge of statics and dynamics in mechanical systems.										
	ENMS04	Use knowledge of material science to solve problems appropriate to manufacturing engineering.										
	ENMS05	Demonstrate knowledge of thermal dynamics.										